New Genera and Species of Neotropical Tephritidae (Diptera)

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ABSTRACT

The following Neotropical taxa in the dipterous family Tephritidae are described: *Lezca*, n. gen., type-species *L. tau*, n. sp.; *Laksyetsa*, n. gen., type-species *L. trinotata*, n. sp.; *Caenoriata*, n. gen., type-species *Acrotaenia pertinax* Bates; and *Neotaracia*, n. gen., type-species *Acrotaenia imox* Bates. Comments on the relationships of these taxa to others are presented.

The following taxa of Mexican and Neotropical Tephritidae are described to make the names available for inclusion in a forthcoming key to the genera of Tephritidae occurring south of Texas and Florida.

Genus **Lezca**, new genus

Type-species.—*Lezca tau* Foote, new species.

Diagnosis.—In lateral view, head higher than long, frons and face meeting at an angle of about 135°; frons haired; 3 pairs lower fronto-orbitals; 2 pairs upper fronto-orbitals, ocellars poorly developed; face shining, spotted, with deep antennal grooves and broadly rounded carina; antenna distinctly longer than face, 3rd segment quite narrow, arista bare; 1 pair dorsocentrals, situated between transverse lines through the anterior supra-alars and postalars; acrostichals present; 1 pair anepisternals; 2 pair scutellars; wing hyaline with a prominent transverse two-toned brown band and other dark marks; vein r-m closer to vein dm-cu than length of former; vein R2 + 3 slightly sinuate; vein R4 + 5 haired; posterior extension of basal cubital cell long.

Discussion.—The genus *Lezca* rather closely resembles 3 other trypetine genera—*Cryptodacus* Hendel (Hendel 1914a, b), *Cryptoplagia* Aczél (Aczél 1951), and *Haywardina* Aczél (Aczél 1951). These 4 distinctive Neotropical genera feature a distally narrowed 2nd cell C, at least 1 prominent dark transverse band from the costa at or near the stigma to the posterior wing margin that may or may not cover both crossveins, a dark area covering the basal cubital cell and a region anterior to it, and usually an apical infuscation. From closely related genera, *Lezca* can be distinguished by the features shown in Table 1. The wing venation and pattern also afford distinguishing characters: veins r-m and dm-cu in *Cryptodacus* and *Cryptoplagia* are far removed from each other and are covered by separate transverse brown bands, while those of *Lezca* and *Haywardina* are situated very close together and are covered by a single brown band. The latter 2 genera differ from each other in that the transverse band of *Haywardina* is very narrow, and a 2nd partial transverse band is completely lacking. All 4 of these genera belong to the tribe Trypetini of the subfamily Trypetinae.

The name *Lezca*, gender hereby designated feminine, is an anagram of the name Aczél. Martin L. Aczél labored effectively to bring order out of chaos among the Neotropical genera of the subfamily Trypetinae.

Lezca tau, new species
(Figs. 1, 2, 4)

Head (fig. 1).—About 1.3 times as high as long; frons yellow, rather narrow, proportion of greatest width to length from ptilinal fissure to anterior corner of ocellar triangle 1.0:1.8, frontal setulae very slender, short, sparse; ocellar triangle black, ocellars only about as long as, but more slender than, posterior upper fronto-orbitals; 3rd antennal segment 4.5–5.0 times as long as greatest width,

Table I.—Comparison of taxonomic characters of trypetine genera.

	Lezca	*Haywardina*	*Cryptodacus*	*Cryptoplagia*
Face and frons mmeting in	angle of 135°	angle of 135°	curve	curve
Face surface	shining	matte	matte	matte
Facial spots	present	absent	absent	absent
Facial carina	present	present	absent	absent
Apex 3rd antennal segment	rounded	pointed	rounded	pointed
Antenna longer than face	yes	no	no	no
Ocellar bristles	short	long	long	long
Gena ⅓ eye height	yes	shorter	shorter	shorter
Location of dorso-centrals	between asa and pa	at asa	at pa	at asa
Vein r-m	beyond mid discal cell	beyond mid discal cell	beyond mid discal cell	at mid discal cell
Vein R2 + 3	straight	sinuate	straight	straight
Vein R4 + 5	haired	haired	haired	bare

slightly wider near apex than at base, base of arista yellow, remainder black; face in profile slightly swollen at middle, 1 pair large, rounded dark spots near anterior oral margin, antennal grooves deep along each side of rounded facial carina; gena with elongated black spot immediately ventrad of eye, postgenal setulae black; palpi expanded.

Thorax.—Scutum orange with a large black inverted triangle between and touching humeri, its apex extending posteriorly along ¼ to ⅓ length of scutum, or a longitudinal line in this position; a rounded black spot at base of prescutellar bristle and 2 narrower dark parallel postsutural fasciae, the supra-alar bristle in the ectal fascia and the postalar between them; a distinct median whitish triangle occupying posterior half of scutum; scuto-scutellar suture with a rather wide black band lying partly on the scutum, partly along anterior margin of scutellum, otherwise scutellum entirely light yellow; postscutellum black to yellow with longitudinal dark median line; humerus yellow; pleuron black but for contrasting yellow markings as follows: a wide band along dorsal margin of katepisternum; a diamond-shaped area along pleural suture, including wing base posteriorly, the top half of the diamond extending dorsally to cover visible portion of transverse suture; a small area surrounding base of halter. *Legs* with basal ⅓ of fore femur markedly expanded, setae in posteroventral row slender, shorter than width of femur at insertions, dorsal femoral setae scattered; basal half of mid femur infuscated posteriorly and ventrally; mid tibia yellow, lacking a row of outstanding setae; basal ⅔ of hind femur darkly infuscated around entire circumference; hind tibia less darkly but more extensively infuscated, with a row of heavy antero-dorsal setae, each about ¾ as long as diameter of tibia, extending full length of tibia. Wing (fig. 4) rather narrow, about 7 mm long, proportion of width to length 1.0:2.5; disk hyaline, with the following dark areas: a triangular area in posterior ½ of cell M extending posteriorly into basal part of CuIA and ending about ½ the distance between base and apex of vein A; a wide brown fascia with narrow darker borders extending from cell 1st C through cell 2nd C, subcostal cell, bases of cells R1 and R3, apical ⅓ of cell R and extreme base of cell R5, through apical ⅓ of discal cell to hind margin; a much lighter brown area at apices of cells R3 and R5, and a faint dark area between the latter and the broad 2-toned brown band; vein r-m at a definite angle to vein dm-cu, these 2 veins much closer together along vein M than length of vein r-m, both crossveins covered by the dark brown margin of the wide transverse band; posterior extension of basal cubital cell about 4 times as long as its width at base.

Abdomen (fig. 2).—Yellow, a broad brown band covering all but extreme anterior and posterior borders and a narrow central area of tergite III, and 2 narrower mesal bands separated by a yellow area as wide as one of the bands, on each of the following tergites; in addition, dark spots at the extreme lateral margins of tergites IV and V and large paired dark spots laterally on tergite VI and sternite VI in the female; ovipositor sheath orange yellow, about as long dorsally as tergite VI. Epandrium rounded dorsally with rather long, thickly set setae; surstyli long, slender, only very slightly curved; glans nearly rectangular in outline, the basiphallus relatively short.

Type-series.—Holotype female, Cuernavaca, Mexico, 13-III-57, trampa cebo, O. Hernandez, coll. (USNM Type No. 75865); allotype male, same data; paratype (head and abdomen missing), same data, wing slide No. 15 (USNM).

The species is named for the unusual dark "T"-shaped mark on the abdominal dorsum.

Genus **Laksyetsa**, new genus

Type-species.—*Laksyetsa trinotata* Foote, new species.

Diagnosis.—In profile, head higher than long, frons and face meeting at an angle of about 120°; face shining, rather deep grooves beneath antennae but in no sense is a distinct carina present, spotted; frons haired, wider than long; 3 pairs lower fronto-orbitals, the anterior pair white; 2–3 pairs upper fronto-orbitals, all white; postoculars mixed black and white; parafrontal spot present; antenna as long as face, 3rd segment triangular but not distinctly pointed apically, arista bare; 1 pair dorsocentrals, situated in a transverse line through supra-alars; 3 pairs anepisternals; 1 pair katepisternals; 2 pairs anepimerals; 2 pairs scutellars, equal in length; wing essentially dark with numerous light spots; bulla present, vein R2 + 3 bent forward around it; vein r-m apicad of middle of discal cell; vein R4 + 5 bare or haired only at base; posterior extension of basal cubital cell nearly 2 times as long as its width at base.

Discussion.—This genus comes out in a key to Neotropical genera now in preparation with *Paracantha* Coquillett and *Neorhabdochaeta* Malloch in a unique group of genera within the tribe Ditrichini having a number of characteristics in common. The heads of species of all 3 genera are quite similar in having a wide frons, large lunule, antennae widely separated at their bases, notably projecting oral margin, the face with a spotted, shining surface, mixed black and white postoculars, the anterior lower fronto-orbital light colored in contrast to the 2 dark posterior pairs, the upper fronto-orbitals all light colored or whitish, the scutum beset with setulae such that 6–8 rounded bare spots remain on the surface in barely distinguishable patterns, and the fore femora with mixed dark and light bristles dorsally and ventrally.

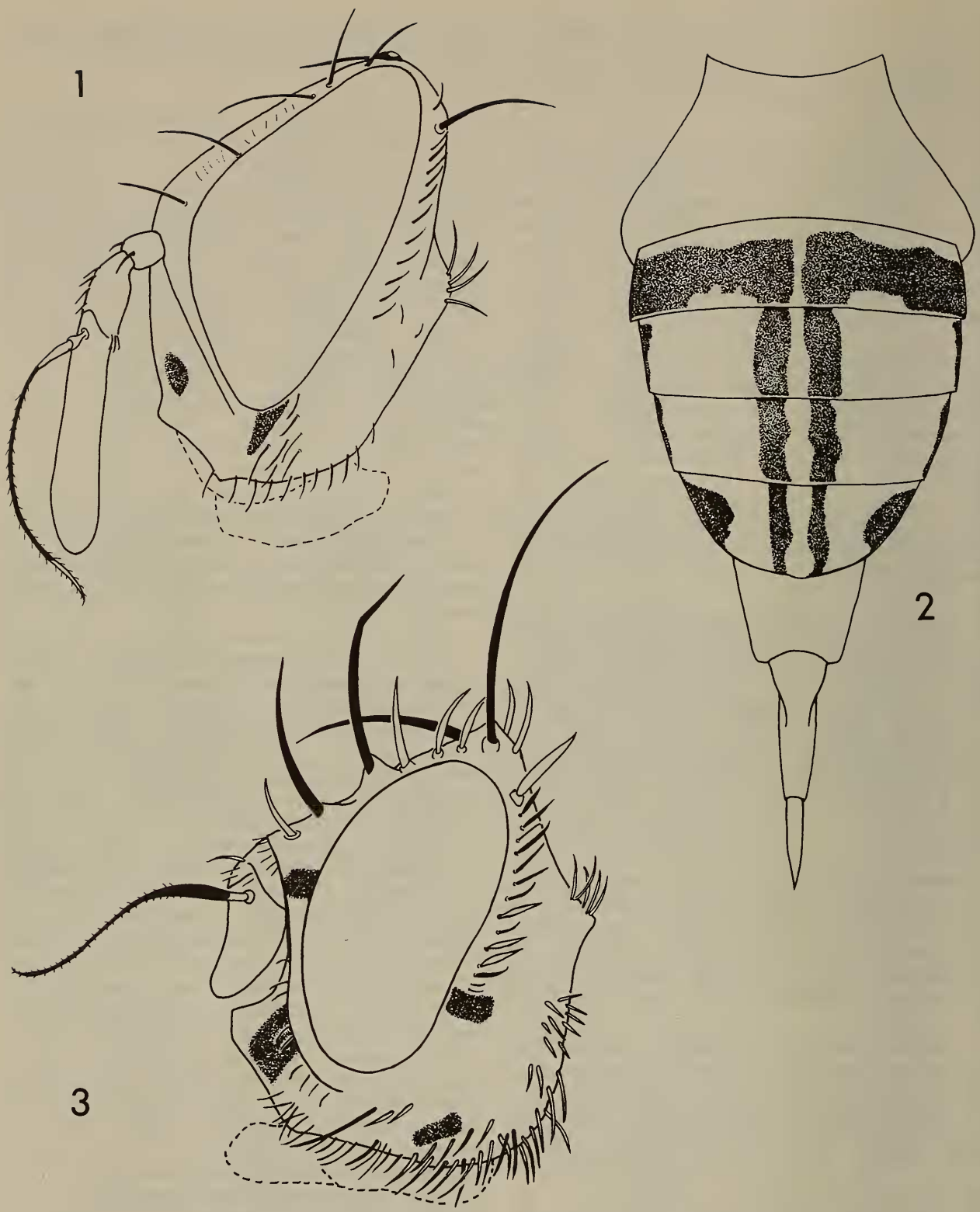
From *Paracantha* and *Neorhabdochaeta, Laksyetsa* may be distinguished by the wing pattern, which does not possess the characteristic dark rays from the center of the disk to the anterior, apical, and posterior margins, but is mainly dark with numerous light spots. In addition, the dorsocentrals of *Laksyetsa* are closer to a transverse line through the supra-alars than to the suture, and the anterior upper fronto-orbitals are located distinctly behind a transverse line through the posterior lower fronto-orbitals.

The name *Laksyetsa*, gender hereby designated feminine, is an anagram of the name Steyskal. George C. Steyskal originally pointed out that this genus had never been described or named.

Laksyetsa trinotata Foote, new species
(Figs. 3, 5)

Head (fig. 3).—In profile, about 2.5 times as high as long; frons about 2.4 times as wide as length from anterior tip of ocellar triangle to ptilinal fissure; setulae on surface extremely fine, lacking pigment; upper fronto-orbitals well mesad of line through lower fronto-orbitals, anterior upper fronto-orbital distinctly posterior to a transverse line through posterior lower fronto-orbitals; anterior pair of lower fronto-orbitals white, about 0.5 times as long as middle pair; ocellar triangle black; lunule with an "M"-shaped dark mark; face with 1 median black spot at level of posterior margin of 3rd antennal segment, another median spot at oral margin, and larger paired spots immediately anterior to anterior-most genal setulae; parafacial spot small but distinctly bordered; postocular row with 2–4 light colored setae among the black; genal bristle and 2–4 bristles close to it all about equal in size.

Thorax.—Brown, matte, with golden setulae which are absent directly behind head between humeri, in vicinity of visible parts of transverse suture, and directly posterior to bases of acrostichals on each side; 1 pair semicircular dark spots at extreme posterior end of scutum, continuing across scutoscutellar suture to cover basal corners of scutellum; 1 pair large rounded dark spots at bases of postalars; pleurae concolorous with scutum except for an indistinctly bordered dark brown stripe involving humerus and proceeding posteriorly between notopleurals below and presutural and postalar above, and a somewhat narrower dark stripe along upper margin of katepisternum; center of anepisternum and most of katespisternum suffused with darker brown; postscutellum entirely dark but with a pair of lateral, black bands when viewed in incident light from behind. *Legs* yellowish brown with darker brown markings in the following areas: most of posterior margin of fore femur but darker ventrally subapically and subbasally, fore tibia suffused with brown subapically and subbasally, femora and tibiae of mid and hind legs each with distinct black subbasal and subapical black spots, especially ventrally on the femora; posteroventral row of setae of fore femur mixed black and white; 5–6 setae in a posterior row on hind tibia, rather slender, shorter than diameter of tibia. *Wing* (fig. 5) 2.3 times as long as wide, field dark brown to base but slightly lighter along costa and in cell A, beset with numerous small rounded light brown (rather than hyaline) spots except in proximal posterior ¼ of disk, where these small spots lighten and coalesce to form a rather broad, nearly hyaline area; vein dm-cu distinctly bowed apically at middle.



Figs. 1–3. *Lezca tau*: 1, side view of head, female; 2, abdominal tergum, ovipositor sheath, ovipositor, female. *Laksyetsa trinotata*: 3, side view of head, female.

Abdomen.—Abdominal terga entirely matte, in female with paired median spots on tergites IV and V, dark area about 2 times as large on tergite IV as on tergite V; tergite VI entirely unspotted; in male, tergite V mostly black, those spots on tergite IV larger than in female. Ovipositor sheath as long as tergites V and VI together, suffused with brown, especially toward apex: epandrium with long setae dorsally, surstyli short, truncated, the prensisetae distinctly separated; glans with the appearance of a transverse plate subapically.

Type-series.—Holotype, female, Llano de las Flores, Oaxaca, Mexico, 24 November 1969, R. L. Hodgdon, flower

head of *Dahlia tenuicaulis*. Intercepted Laredo, Tex. No. 000548, 69-24957 (USNM Type No. 75866) Allotype, male, same data. Paratypes: 1 male, 2 (without abdomens), same data, 1 female, 10 mi. W. El Salto, Durango, Mexico, 9000′, 30 June 1964, W. R. M. Mason (Canadian National Collection, Agriculture Canada). The specimens from Oaxaca were found in the flowers of *Dahlia tenuicaulis* being sent to the United States for propagation.

The species is named for the 3 dark spots on the anterior oral margin.

Genus **Caenoriata**, new genus

Type-species.—*Acrotaenia pertinax* Bates 1934: 12, fig. 3 (wing).

Diagnosis.—Frons bare; 3 pairs lower fronto-orbitals; 2 pairs upper fronto-orbitals, both pairs light-colored; all setae in postocular row concolorous light; face with broad, rounded carina; 2 pairs dorsocentrals, 1 pair anterior to transverse suture; both pairs notopleurals unicolorous; 2 pairs scutellars, posterior pair longer than 0.5 times anterior; basal 0.6 of wing (fig. 6) almost entirely dark with narrow dark rays radiating to anterior, apical, and posterior margins from center of cell R5; vein r-m apicad of middle of discal cell; vein R2 + 3 rather sinuate; posterior extension of basal cubital cell rather long; bulla absent.

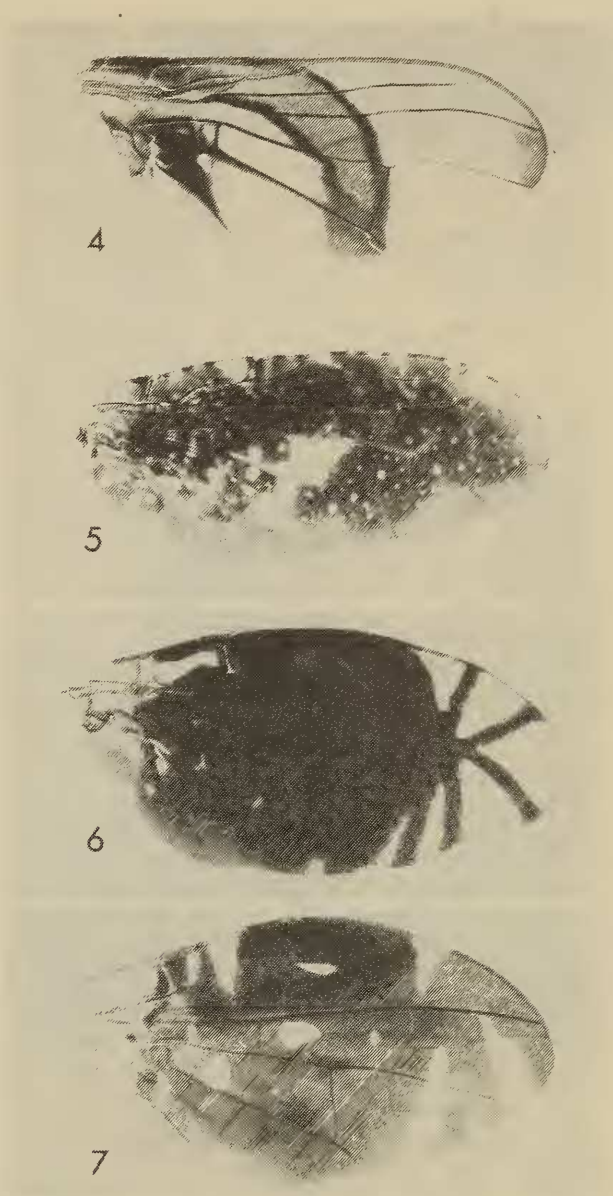
Discussion.—The type-species, known only from Brazil, is the only known representative of the genus. For comments on relationships with other genera, see discussion section under the following genus.

The name *Caenoriata*, hereby designated feminine in gender, is an anagram of the generic name *Acrotaenia*.

Genus **Neotaracia**, new genus

Type-species.—*Acrotaenia imox* Bates 1934: 11, fig. 2 (wing).

Diagnosis.—Frons bare, 3 pairs lower fronto-orbitals; 2 pairs upper fronto-orbitals, only the posterior pair light colored; all setae in postocular row light colored; broad, rounded facial carina present; 1 pair dorsocentrals, situated almost directly in transverse suture; both pairs notopleurals the same color; 2 pairs scutellars, posterior pair less than 0.5 times length of anterior pair; wing (fig. 7) mostly dark, cell R1 almost completely and evenly dark save for a hyaline incision immediately apicad of subcostal cell and one at extreme apex descending into cell R2 + 3; vein r-m at or very close to middle of discal cell; vein R2 + 3 nearly straight; posterior extension of basal cubital cell quite short; bulla absent.



Figs. 4–7, right wings. 4, *Lezca tau*; 5, *Laksyetsa trinotata*; 6, *Caenoriata pertinax* (Bates); 7, *Neotaracia imox* (Bates).

Discussion.—The type-species has been recorded to date only from Trinidad, Costa Rica, and Panama. The name *Neotaracia*, gender hereby designated feminine, is an anagram of the generic name *Acrotaenia*.

Caenoriata and *Neotaracia* are closely allied to *Acrotaenia* Loew and belong, with several other genera, to the tribe Platensinini of the subfamily Tephritinae. Table 2 sets forth the principal characters

Table II.—Comparison of taxonomic characters of tephritine genera.

	Acrotaenia	*Caenoriata*	*Neotaracia*
Color of postoculars	mixed dark and light	all light	all light
Frons	bare or haired	bare	bare
Upper fronto-orbitals	unicolorous	unicolorous	posterior pair light
Facial carina	absent	present	present
Dorsocentrals	1 pair	2 pairs	1 pair
Posterior pair scutellars	equal to anterior	longer than 0.5 anterior	shorter than 0.5 anterior
Vein r-m	beyond mid discal cell	beyond mid discal cell	at mid discal cell
Vein R2 + 3	sinuate	straight	straight
Posterior extension of basal cubital cell	very short	moderately long	very short

distinguishing the 3 genera being considered here. Although the wings of all 3 are rather similar structurally, their wing patterns differ markedly as shown in figs. 6 and 7. The wing of neither of the new genera possesses a) strongly emphasized bullae in the anterior basal quarter of the wing disk, b) the numerous small rounded hyaline spots in the basal half, nor c) the transverse brown bands in the apical third of the wing disk, all of which are so characteristic of *testudinea* (Loew), the type-species of *Acrotaenia*, and its true congeners. Species of *Acrotaenia* have been recorded from southern United States, Mexico, Central America, Bahamas, West Indies, Trinidad, and Brazil (Foote 1967), and I have seen additional specimens more recently from Colombia and Surinam.

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